

REMARKS/ARGUMENTS

Reconsideration of this application, in view of the foregoing amendment and the following remarks and arguments, is respectfully requested.

Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 are currently pending in this application. In the foregoing amendment independent Claims 1, 44 and 55 were revised. Accordingly, Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 remain in this application for consideration and allowance.

In the April 3, 2009 Office Action the following claim rejections, which are respectfully traversed for reasons subsequently set forth herein, were made.

1. Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 were rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement due to the use in such claims of the phrase “rigidly fixing”; and
2. Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 5,755,797 to Baumgartner in view of U.S. Patent 6,620,196 to Trieu.

1. The 35 USC §112, First Paragraph Rejection

In the foregoing amendment, this rejection has been overcome by deleting from independent Claims 1, 44 and 55 the objected-to word “rigidly” from the phrase “rigidly fixing”, and further revising such claims to incorporate therein specific language from the originally filed specification wherein, beginning on line 10 of page 9, it is stated that:

When the desired reduction has been **obtained** through introduction of an appropriate number of reduction elements may be **fixed** in the intravertebral space with additional material to post-operatively **maintain the vertebral reduction obtained**. For example, a resorbable bone cement, poly(methyl methacrylate) (PMMA), or suitable flowable, curable material can be placed intravertebrally and into the voids between the reduction elements 32 to fix the reduction elements 32 in position. (Emphasis added).

Thus, as the Examiner has required, the phrase “rigidly fixing” has been removed from applicants’ claims, and “limitations that are in the original disclosure” utilized in such claims. It is thus respectfully requested that the Examiner’s 35 USC §112, first paragraph rejection of Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 be withdrawn.

2. The 35 USC §103(a) Rejection

For the Examiner’s convenience, amended independent Claims 1, 44 and 55 have been reproduced below, with the revised language therein having been highlighted for discussion purposes.

1. An intravertebral reduction system, comprising:

a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements act one upon the other upon sequential positioning thereof in the intravertebral space to compress cancellous bony tissue and apply an outwardly directed corrective force in the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a **reduction element** volume within the intravertebral space that **obtains a desired vertebral reduction**;

voids between respective ones of said plurality of reduction elements; and

means for fixing said plurality of reduction elements at said **reduction element** volume in engagement with one another in the intravertebral space **in a manner maintaining the obtained vertebral reduction despite variations in spinal loading**, said means including material filling said voids and locking said plurality of reduction elements relative to one another.

44. An intravertebral reduction system, comprising:

a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements act randomly and radially one upon the other upon sequential positioning thereof in the intravertebral space compressing cancellous bony tissue and applying an outwardly directed corrective force in the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a **reduction element** volume within the intravertebral space that **obtains a desired vertebral reduction**;

voids between respective ones of said plurality of reduction elements; and

material filling said voids and fixing said plurality of reduction elements at said **reduction element** volume in engagement with one another in the intravertebral space **in a manner maintaining the obtained vertebral reduction despite variations in spinal loading**, said material locking said plurality of reduction elements relative to one another.

55. (Currently Amended) An intravertebral reduction system, comprising:

a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements include exterior surface means for facilitating engagement between adjacent reduction elements and for facilitating said reduction elements acting randomly and radially one upon the other upon sequential positioning thereof in the intravertebral space to compress cancellous bony tissue and apply an outwardly directed corrective force in the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a **reduction element** volume within the intravertebral space that **obtains a desired vertebral reduction**;

voids between respective ones of said reduction elements; and

material filling said voids and fixing said plurality of reduction elements at said **reduction element** volume in engagement with one another in the intravertebral space for **in a manner maintaining the obtained vertebral reduction despite variations in spinal loading**, said material locking said plurality of reduction elements relative to one another.

As can be seen, in each of applicants' independent Claims 1, 44 and 55 (the only currently pending independent claims), the objected-to word "rigidly" has been deleted from the term "rigidly fixing", the word "volume" has been changed to "reduction element volume" to clarify that the volume referred to by applicants is the volume occupied by the reduction elements, and the phrase "obtains a desired vertebral reduction" has been added as a claimed structural characteristic of the in-place plurality of reduction elements. Further, it is now specified in these independent claims that the recited material filling the voids between the reduction elements and locking the plurality of reduction elements relative to one another does so **in a manner maintaining the obtained vertebral reduction despite variations in spinal loading**.

It should be noted at the outset that both Baumgartner and Trieu illustrate and describe **intervertebral** prostheses and implants which are **designed** to be resiliently **compressed** (i.e., undergo a volume reduction) once they are operatively installed in a disc space to facilitate a requisite elastically resistant, movement-permitting support of the facing vertebral bodies on

opposite sides of the intervertebral prosthesis/implant structure provided by either Baumgartner or Trieu. It is specifically disclosed in Baumgartner that the support members 7 are elastically deformed during loading and that the outer bag 10 is formed from a flexible material, and in Trieu the implant core 15 is disclosed as being formed from an elastically deformable material and the elastic core's outer shell 30 is disclosed as being of a flexible material. Accordingly, in response to a longitudinal spinal compression force in either Baumgartner or Trieu, their implants are compressed and the distance between the associated facing vertebral body pair is resiliently permitted to decrease in response to the designed-for volume reductions in their respective implants.

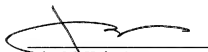
Accordingly, neither of the Baumgartner and Trieu structures, if installed in an intravertebral space would function, as required in the present applicants' independent Claims 1, 44 and 55, to maintain (i.e., after the installation of applicants' claimed intravertebral reduction system) a previously obtained vertebral reduction despite variations in spinal loading. Various spinal loadings would simply compress either the Baumgartner and Trieu implant/prosthesis structure and thereby cause it to fail to maintain the previously obtained desired vertebral reduction as specified in applicants' independent Claims 1, 44 and 55. Even if the Trieu flexible shell 30 were to be installed around the loose support members 7 of Baumgartner, the resulting structural combination would still not meet the limitations of any of applicants' independent claims 1, 44 and 55.

It is thus respectfully submitted that none of applicants' independent Claims 1, 44 and 55, nor any of their dependent Claims 5-7, 11-14, 45-47, 51-54, 56, 57, 61-64, 67 and 69, is rendered obvious by U.S. Patent 5,755,797 to Baumgartner or U.S. Patent 6,620,196 to Trieu, whether these two references are considered singly or in any combination thereof.

In view of the foregoing amendment, remarks and arguments, all of the claims currently pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of Claims 1, 5-7, 11-14, 44-47, 51-57, 61-64, 67 and 69 is therefore earnestly solicited.

The Examiner is hereby requested to telephone the undersigned attorney of record at 408-548-3929 if such would further or expedite the prosecution of the instant application.

Respectfully submitted,



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